

What is claimed is:

1. A transmission for varying power of a motor on a working transmission shaft
and on a drive transmission shaft by operation of a shift lever for transmission
5 to working devices and drive wheels, comprising:
 - on the working transmission shaft,
 - an input gear for receiving power of the motor;
 - a constant-mesh transmission mechanism for transmitting power of the
input gear to the working devices or cutting off the power; and
 - 10 a first gear row comprising a plurality of gears integrally mounted on
the working transmission shaft; and
 - on the drive transmission shaft,
 - a second gear row comprising a plurality of gears rotatably mounted on
the drive transmission shaft and meshing with the first gear row; and
 - 15 a key-sliding transmission mechanism axially movably mounted for
rotating a selected one of the gears and the drive transmission shaft together to
transmit power to the drive wheels; and
 - shift members attached to the constant-mesh transmission mechanism
and the key-sliding transmission mechanism, respectively, which shift members
20 being axially movable when engaged with the shift lever for effecting a shift
operation.
2. A transmission as set forth in claim 1, wherein the constant-mesh
transmission mechanism comprises:
 - 25 the working transmission shaft;
 - an input gear mounted on the working transmission shaft;
 - a coupling sleeve having teeth in mesh with the input gear;

a drive sprocket having a gear for engaging with the coupling sleeve when the sleeve axially moves; and

a clutch mechanism for allowing circumferential movement of teeth of the coupling sleeve for engaging or disengaging the teeth of the sleeve with or
5 from the gear of the drive sprocket.

3. A transmission as set forth in claim 2, wherein the teeth of the coupling sleeve and teeth of the gear have, at first ends thereof, tapers formed opposite to one another.

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4. A transmission as set forth in claim 2, wherein the clutch mechanism comprises:

a hole formed orthogonally to the axis of the working transmission shaft;

a protruding member provided to protrude from or retract into a first
15 opening of the hole;

an engaging member protruding from a second opening of the hole, engaging an inside peripheral surface of the input gear so as to restrict rotation of the input gear with respect to the working transmission shaft; and

a biasing member interposed between the protruding member and the
20 engaging member for pressing the protruding member and the engaging member outward of the hole.

5. A transmission as set forth in claim 4, wherein the input gear has, in an inside peripheral surface thereof, a first groove the protruding member can
25 come in and out, and a second groove which allows the engaging member to move in a rotative direction of the working transmission shaft.

6. A transmission as set forth in claim 5, wherein the first groove includes a depression the protruding member comes in and an inclined surface formed circumferentially continuously from the depression.